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## Exercise Sheet 1

Submit until Wednesday, May 2 at 4:00pm

### Exercise 1 (2 points)

Please register at our course system Daphne (using your RZ Account + password for authentication). You find the link to Daphne on the Wiki page of the course (which in turn is linked to from the website of our chair).

On your Daphne page, you will find links to our coding standards and the URL of your folder in our SVN repository.

### Exercise 2 (7 points)

Implement a simple class *RoadNetwork* for an undirected graph with arc costs. Consider the implementation advice given in the lecture. Use either Java or C++.

Add a method *readFromOsmFile* to your class that reads an OSM file (in XML format) and constructs the corresponding road network. To translate the road types to speeds, use the table that will be provided on the Wiki.

### Exercise 3 (7 points)

Use your code from Exercise 2 to read the OSM files for Saarland and Baden-Württemberg linked to from the course Wiki.

Add a line to the table linked to from the course Wiki, stating your name, the number of arcs and nodes in your graphs, and any other information asked for there.

### Exercise 4 (4 points)

Check out a working copy of your folder in the SVN repository of the course (see Exercise 1), add your code, and commit it.

Also add and commit a text file *feedback-exercise-sheet-1.txt* where you briefly describe your experiences with the first exercise sheet and the corresponding lecture. In particular, say how much time you invested and where you had problems.